

#12/Revoc.  
w/P.O.A.Docket No.: 30566/30029  
ISPH-0592  
(PATENT)

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:  
Crooke et al.

Application No.: 09/920,033

Group Art Unit: 1635

Filed: August 1, 2001

Examiner: Janet L. Epps

For: Antisense Modulation of Apolipoprotein B  
Expression**REVOCATION OF POWER OF ATTORNEY  
AND NEW POWER OF ATTORNEY**Commissioner for Patents  
Washington, DC 20231

Dear Sir:

The undersigned having appointed Licata and Tyrrell P.C., 66 East Main Street, Marlton, NJ 08053, as our attorney to prosecute an application for Letters Patent, which application was filed on August 1, 2001, for an invention entitled ANTISENSE MODULATION OF APOLIPROTEIN B EXPRESSION, Application No. 09/920,033, hereby revokes the Power of Attorney then given, and hereby appoints the following attorneys and/or agents to prosecute this application and transact all business in the U.S.

Patent and Trademark Office connected herewith:

John B. Lungmus	18,566	Jeffrey S. Sharp	31,879	Joseph A. Williams, Jr.	38,659
Allen H. Gerstein	22,218	Martin J. Hirsch	32,237	David C. Read	39,811
Nate F. Scarpelli	22,320	Richard M. LaBarge	32,254	Thomas A. Miller	40,091
Michael F. Borun	25,447	James J. Napoli, Ph.D.	32,361	William K. Merkel	40,725
Carl E. Moore, Jr.	26,487	Li-Hsien Rin-Laures	33,547	Sandip H. Patel	43,848
Richard H. Anderson	26,526	Robert M. Gerstein	34,824	Kevin M. Flowers	44,684
Patrick D. Ertel	26,877	Michael R. Hull	35,902	William J. Kramer	46,229
Richard B. Hoffman	26,910	Anthony G. Sitko	36,278	Thomas J. Wrona	44,410
James P. Zeller	28,491	Roger A. Heppermann	37,641	Andrew M. Lawrence	46,130
Thomas I. Ross	29,275	David A. Gass	38,153	Eric M. Brusca	52,664
Kevin D. Hogg	31,839	Gregory C. Mayer	38,238	Lynn L. Janulis	53,066
		Michael R. Weiner	38,359	Katherine L. Neville	53,379

of the firm Marshall, Gerstein & Borun and Herb Boswell, Registration No. 27,311; Laurel Spear Bernstein, Registration No. 37,280; Neil S. Bartfield, Registration No. 39,901; Matthew Grumbling, Registration No. 44,427; and Donna T. Ward, Registration No. 48,271 of Isis Pharmaceuticals, Inc.

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Address all communications to:

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For:  Isis Pharmaceuticals, Inc.

Dated: 4/9/03

Name: B. Lynne Parshall

Title: Executive Vice President

MAY 16 2003

PTO/SB/96 (08-00)

Approved for use through 10/31/2002. OMB 0651-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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**STATEMENT UNDER 37 CFR 3.73(b)**

Applicant/Patent Owner: Rosanne M. Crooke and Mark J. Graham  
 Application No./Patent No.: 09/920,033 Filed/Issue Date: August 1, 2001  
 Entitled: Antisense Modulation of Apolipoprotein B Expression  
Isis Pharmaceuticals, Inc., a Corporation  
 (Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

1. ☒ the assignee of the entire right, title, and interest; or  
 2. ☐ an assignee of less than the entire right, title and interest.  
 The extent (by, percentage) of its ownership interest is \_\_\_\_\_ %

in the patent application/patent identified above by virtue of either:

- A. ☒ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel 01259, Frame 0014, or for which a copy thereof is attached.

OR

- B. ☐ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:

1. From: \_\_\_\_\_ To: \_\_\_\_\_  
 The document was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.  
 2. From: \_\_\_\_\_ To: \_\_\_\_\_  
 The document was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.  
 3. From: \_\_\_\_\_ To: \_\_\_\_\_  
 The document was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

[ ] Additional documents in the chain of title are listed on a supplemental sheet.

- [ ] Copies of assignments or other documents in the chain of title are attached.

[NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

4/9/03  
 Date

B. Lynne Parrish  
 Typed or printed name  
 Signature  
Executive Vice President  
 Title

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

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## A S S I G N M E N T

WHEREAS, We, Rosanne M. Crooke, of Carlsbad, State of California and Mark J. Graham of San Clemente, State of California, have invented a certain invention entitled Antisense Modulation of Apolipoprotein B Expression, for which we have made application for Letters Patent of the United States, said application having been filed August 1, 2001 and assigned Application No. 09/920,033; and

WHEREAS, ISIS Pharmaceuticals, Inc. hereinafter referred to as the assignee, of 2292 Faraday Avenue, Carlsbad CA, a corporation of Delaware, is desirous of acquiring the entire right, title and interest in and to the said inventions or improvements and in and to the said application, and in, to and under any and all Letters Patent which may be granted on or as a result thereof in any and all countries:

NOW, THEREFORE, for and in consideration of the sum of One Dollar (\$1.00) to each of us in hand paid by said assignee, and other good and valuable consideration, the receipt of which is hereby acknowledged, we, the said assignors, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over to said assignee, the entire right, title and interest in and to said inventions or improvements and said application and any and all continuations, divisions and renewals of and substitutes for said application, and in, to and under any and all Letters Patent which may be granted on or as a result thereof in the United States and any and all other countries, and any reissue or reissues or extension or extensions of said Letters Patent, and assign to and authorize said assignee, to file in our names applications for Letters Patent in all

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countries, the same to be held and enjoyed by said assignee, its successors, assigns, nominees or legal representatives, to the full end of the term or terms for which said Letters Patent respectively may be granted, reissued or extended, as fully and entirely as the same would have been held and enjoyed by us had this assignment, sale and transfer not been made.

AND we hereby covenant that we have full right to convey the entire interest herein assigned, and that we have not executed and will not execute any agreement in conflict herewith, and we further covenant and agree that we will each time request is made and without undue delay, execute and deliver all such papers as may be necessary or desirable to perfect the title to said inventions or improvements, said application and said Letters Patent to said assignee, its successors, assigns, nominees, or legal representatives, and each of us agrees to communicate to said assignee or to its nominee all known facts respecting said inventions or improvements, said application and said Letters Patent, to testify in any legal proceedings, to sign all lawful papers to execute all disclaimers and divisional, continuing, reissue and foreign applications, to make all rightful oaths, and generally to do everything possible to aid said assignee, its successors, assigns, nominees and legal representatives to obtain and enforce for its or their own benefit proper patent protection for said inventions or improvements in any and all countries.

AND we hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any country or countries foreign to the United States whose duty it is to issue patents on applications as aforesaid, to issue to said assignee, as assignee of the entire right, title and interest, any

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and all Letters Patent for said inventions or improvements, including any and all Letters Patent of the United States which may be issued and granted on or as a result of the application aforesaid, in accordance with the terms of this assignment.

IN WITNESS WHEREOF, we have hereunto set our hands and seals.

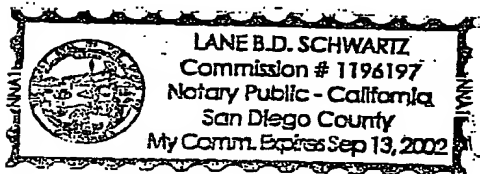
DATED: 12/5, 2001

Rosanne M. Crooke  
Rosanne M. Crooke

State of California            )  
  ) ss.  
County of San Diego         )

On this 5<sup>th</sup> day of December, 2001, before me, the undersigned, a Notary Public for the state, personally appeared Rosanne M. Crooke, personally known to me/~~proved to me on the basis of satisfactory evidence~~ to be the person who subscribed the foregoing Assignment and acknowledged to me that she executed the same in her authorized capacity, and that by her signature on the Assignment the person, or the entity on behalf of which the person acted, executed the Assignment.

WITNESS my hand and official seal.



Lane B.D. Schwartz  
Signature of Notary

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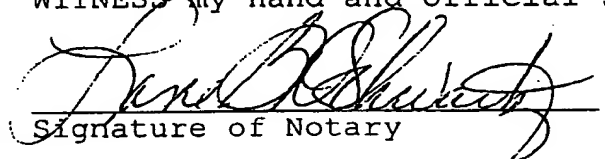
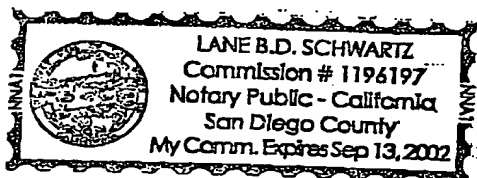
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DATED: 11/30/01, 2001  
Mark J. Graham

State of California )  
County of San Diego ) ss.

On this 30th day of November, 2001, before me, the undersigned, a Notary Public for the state, personally appeared Mark J. Graham, personally known to me/~~proved to me on the basis of satisfactory evidence~~ to be the person who subscribed the foregoing Assignment and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the Assignment the person, or the entity on behalf of which the person acted, executed the Assignment.

WITNESS my hand and official seal.

  
Signature of Notary